

Alaska Clean Water Actions Grants – FY12

Below are summaries of the Alaska Clean Water Actions (ACWA) Grants for projects starting in July 2011 and finishing in June 2012. The summaries are arranged by region of the state and include the contact information for the group conducting the project.

Southeast Region

Monitoring Bacteria Levels on Haines Beaches

Takshanuk Watershed Council (TWC), \$24,511

This project addresses an ACWA Stewardship priority. Beaches in the Haines area are increasingly used for recreation during the summer months as the long days draw both local residents and tourists to the beach for a variety of activities. This project will conduct fecal bacteria monitoring at three recreational beaches in the Haines Borough - Portage Cove, Lutak Beach, and Letnikof Beach. These beaches were identified by DEC as high priority because they are commonly used for contact recreation activities. Through this project, the TWC will monitor the bacteria in the waters, increase public awareness of potential bacterial sources and the health risks associated with bacterial contamination, and work with the Haines Borough to limit beach access in the event of significant bacterial exceedances to ensure public health is protected. Contact: Brad Ryan, (907) 766-3542.

Monitoring Juneau Beaches for Fecal Pollution

Juneau Watershed Partnership (JWP), \$26,313

This project addresses an ACWA Stewardship priority. The JWP, in cooperation with the City and Borough of Juneau and U.S. Forest Service, Tongass Ranger District, will monitor Auke Lake Recreation Area, Lena Cove, and Ann Coleman Road beaches for fecal bacteria pollution to evaluate possible risk to recreational users and ensure public health and safety. These Juneau area beaches were identified by DEC as high priority because they are commonly used for contact recreation activities. Any events where bacterial levels exceed public health criteria will be evaluated for possible sources. If chronic bacterial exceedances are detected, further work may be necessary to confirm sources of pollution and prepare mitigation plans for affected areas, as appropriate. Contact: Beverly Schoonover, (907) 586-6853.

Pullen Creek Stormwater Best Management Practices Manual & Outreach,
Taiya Inlet Watershed Council (TIWC), \$25,800

This project addresses an ACWA Waterbody Restoration priority. Pullen Creek was placed on the State's list of impaired (polluted) waters in 1990 due to contamination. A waterbody recovery plan called a Total Maximum Daily Load (TMDL) was approved by EPA in 2010. In this project, the TIWC will partner with the Municipality of Skagway to reduce metals and sediment from stormwater runoff to Pullen Creek. The project includes the development of a Stormwater Best Management Practices (BMP's) Manual targeting Pullen Creek, installation of storm drain guards and community outreach to reduce stormwater pollution in Pullen Creek. These tasks will address stormwater runoff from a wide range of sources and lead to improved water quality of Pullen Creek. Contact: Andrea Conley, (907) 983-2426.

Saxman Stormwater: Capacity Building Program

City of Saxman, \$30,000

This project addresses an ACWA Stewardship priority. The City of Saxman is located in a coastal area and lacks a stormwater management program. This project will develop a Stormwater Master Plan for the community. This plan will provide the engineering baseline and technical information needed to develop city ordinances, policies, recommendations, and best practices which protect water/environmental quality, historic resources, homes, and infrastructure from stormwater concerns. The project will develop ordinances to minimize stormwater runoff from new and reconstruction activities including roads, highways, and bridges; and incorporate green infrastructure into land use planning, platting, construction development, and redesign. Saxman staff will use the Stormwater Master Plan to apply for grant and other funding which will be used to construct improvements and green infrastructure projects outlined in the plan. These activities will help protect water quality by supporting mitigation of existing stormwater problems, and will ensure that the impacts of new development on water quality are minimized. Contact: Jason Custer, (907) 225-4166 ext. 13.

Stormwater Master Plan and Management Guidelines

City and Borough of Sitka (CBS), \$24,000

This project addresses an ACWA Stewardship priority. The CBS does not have a stormwater master plan or mapping program for protection of inland and coastal waters from stormwater runoff pollution. This project will fill that gap by mapping and inventorying existing stormwater facilities; identifying existing discharges, inadequate storm drains, and management measures to reduce polluted stormwater runoff; and determining various maintenance, repair and design alternatives to maximize the capabilities of the stormwater system. The project includes hydrologic modeling to estimate stormwater runoff quantities and provides for long-term environmental stewardship. Contact: Stephen Weatherman, (907) 747-4042.

Strategic Debris and Assessment Reduction Planning

Juneau Watershed Partnership (JWP), \$19,230

This project addresses an ACWA Waterbody Restoration priority. Juneau's Duck, Jordan, and Vanderbilt Creeks have chronic debris (garbage) levels exceeding state water quality standards. While the JWP has successfully worked in the past to reduce and remove anthropogenic debris from these streams, the chronic debris accumulation necessitates a targeted debris management strategy to reduce debris loading for the long-term recovery of these streams. This project will evaluate debris accumulation in each stream corridor, including identification of areas where large debris loads accumulate; engage the public in debris assessment and removal in each creek, and finally; use TMDL data and past/current quantitative debris loading and removal data to evaluate debris management affect on water quality. This project will create detailed, targeted debris management prescriptions and removal plans for long-term habitat and water quality improvement. The goal is to remove the impairment status of these waters from debris pollution. Contact: Beverly Schoonover, (907) 586-6853.

South Central Region

Clean Boating on Big Lake

Cook Inletkeeper (CIK), \$20,697

This project addresses an ACWA Waterbody Restoration priority. In 2006, Big Lake was listed as impaired (polluted) for petroleum hydrocarbons that exceeded state water quality standards. Monitoring in 2009 confirmed high levels of hydrocarbons in Big Lake, primarily during high use holiday weekends (Memorial Day, Fourth of July, and Labor Day weekends), and in the vicinity of high use areas (private marinas, public boat launches and traffic lanes). Big Lake is a popular recreational lake in the Mat-Su Borough and an important economic asset to the Big Lake community. During 2010 and early 2011, local community members and other stakeholders of Big Lake developed an Action Plan for reducing pollution in Big Lake through targeted outreach and education. Using the Big Lake Action Plan as a guide, this project will address the goals of meeting water quality standards and removing the impairment status of Big Lake through a comprehensive educational clean boating campaign. This project has three objectives: 1) Develop and implement an educational clean boating program to ensure that boaters have locally available resources, know how to practice clean boating skills, and have an understanding of the negative impacts of petroleum on human health and fish habitat; 2) Empower campground hosts and local business owners to encourage 'Clean Boating on Big Lake'; and, 3) Implement best management practices to institutionalize pollution reduction practices under the Alaska Clean Harbors program at Big Lake marinas. Contact: Rachel Lord, (907) 235-4068 ext. 29.

Kenai River Watershed Monitoring

Kenai Watershed Forum (KWF), \$28,272

This project addresses an ACWA Waterbody Protection priority. The Kenai River is one of the premier commercial and sportfish rivers in south-central Alaska. Water quality monitoring of the river led to actions to insure water quality is maintained. This project continues the multi-agency annual petroleum hydrocarbon sampling effort in the Kenai River watershed at 11 sites on the mainstem of the Kenai River and from 11 tributaries just upstream from where they enter the Kenai River during peak power boat usage. This water quality monitoring effort will ensure the Kenai River Waterbody Recovery Plan continues to be effective and that water quality standards continue to be met. Contact: James Czarnecki, (907) 260-5478.

Kenai River Monitoring, Waste Management and Education

City of Kenai, \$80,901

This project addresses an ACWA Stewardship priority. The Kenai River is one of the premier commercial and sportfish rivers in south-central Alaska. Elevated levels of enterococci and fecal coliform bacteria were measured in samples collected by DEC during the July 2010 dipnet salmon fishery at the mouth of the Kenai River. A large number of birds, primarily gulls, were observed on the beaches during the dipnet fishery. This project will monitor and test for bacteria at two locations at the mouth of the Kenai River (one site on the North Beach and one site on the South Beach) and at one location near the Warren Ames Bridge (River Mile 5). Bacteria monitoring will be used to determine if water quality meets the criteria to protect recreational beach users. Sampling will also seek to determine the source of the bacteria. Most of the samples will be collected during July and early August. Two sets of samples will be collected in October, after most of the gulls have left the area. The project will also install educational signs on the beach and produce and distribute educational material. Contact: Rick Koch, (907) 283-8222.

Little Susitna River Conservation

Palmer Soil and Water Conservation District (PSWCD), \$11,170

This project addresses an ACWA Waterbody Protection priority. The lower Little Susitna River is at risk of water quality impairment from petroleum hydrocarbon pollution and turbidity. This project will develop and implement a year-long educational campaign on the impacts of petroleum and turbidity pollution to aquatic species and ways to reduce this pollution. The outreach campaign will build off of the DEC's current "*Fuel Out – Fish On!*" outreach message. The project will educate users of the lower Susitna River recreational fishery by conducting six outreach weekends at the State-operated public use facility and boat launch during the peak of the coho and Chinook salmon fisheries. The goals of the project include improved water quality through a more educated boating public. Contact: Kelly Strawn, (907) 745-1647.

Mat-Su Stormwater Assessment

Aquatic Restoration and Resources (ARRI), \$46,050

This project addresses an ACWA Stewardship priority. It continues work needed to protect Wasilla Creek, Cottonwood Creek and Little Meadow Creek from the effects of urbanization on water quality and fish habitat. All three creeks are important for salmon spawning and rearing. Wasilla Creek supports coho, Chinook, and chum salmon, and both Cottonwood Creek and Little Meadow Creek are lake-stream systems important for the spawning and rearing of sockeye salmon, coho salmon and resident rainbow trout. The proposed project will investigate where polluted stormwater impacts are occurring in the target waters, the degree and extent of these impacts, what pollutants are of most concern and what the affects are to fish habitat. The information gained is critical to understanding the impacts of pollutants transported by urban stormwater runoff on these salmon streams and to assist resource managers in making effective and targeted decisions to protect these fisheries. Contact: Jeff Davis, (907) 733-5432.

Monitoring Bacteria on South Kenai Peninsula Beaches

Cook Inletkeeper (CIK), \$32,724

This project addresses an ACWA Stewardship priority. Beaches in the Homer area experience heavy recreation use during the summer months by local residents and tourists. This project will provide the community with data on bacteria levels at Bishop's Beach in the City of Homer and on two beaches in Anchor Point, all of which have been identified as priority recreational beaches by the DEC. Through this project, CIK will increase public awareness of potential bacterial sources and the health risks associated with bacterial contamination and will work closely with the City of Homer and the DEC to limit beach access in the event of significant bacterial exceedances. The project will monitor bacteria during beach peak-use and institute a public notification system when bacteria levels raise public health concerns. Contact: Rachel Lord, (907) 235-4068 ext. 29.

Stream Temperature Monitoring Network – Cook Inlet

Cook Inletkeeper (CIK), \$65,715

This project addresses an ACWA Stewardship priority. Water temperature is one of the most significant factors in the health of stream ecosystems. For salmon specifically, temperature affects survivorship of eggs and fry, rate of respiration and metabolism, timing of migration, and resistance to disease and pollution. Because temperature plays a critical role in salmonid habitat protection, reproduction and survivorship - and because wild, healthy salmon support vital sport, commercial, subsistence and personal use fisheries across Alaska - there is an urgent need to assess rising temperatures in Alaska salmon habitats. This project will 1) complete the fourth year and begin the fifth and final year of consistent data for the Stream Temperature Monitoring

Network on Alexander Creek, Beaver Creek, Bishop Creek, Byers Creek, Cache Creek, Chenik Creek; Chester Creek, Chijuk Creek, Cottonwood Creek, Crooked Creek, Deception Creek, East Fork Chulitna River, English Bay River, Fish Creek, Fox Creek, Funny River, Hidden Creek, Jim Creek, Kroto (Deshka) Creek, Little Willow Creek, McNeil River, Meadow Creek, Montana Creek, Moose Creeks (Palmer & Talkeetna), Moose River, NF Campbell Creek, Nikolia Creek, Quartz Creek, Rabbit Creek, Resurrection Creek, Seldovia River, Shantatalik Creek, Ship Creek, Silver Salmon Creek, Slikok Creek, Soldotna Creek, Swanson River, Theodore River, Trapper Creek, Troublesome Creek, Wasilla Creek, and Willow Creek; 2) develop a Stream Temperature Action Plan which will identify future research needs, next steps for monitoring and habitat protection efforts, and recommendations to improve stream temperature data collection for fisheries management and hydrologic modeling; and 3) analyze 2011 temperature data to establish natural conditions and generate maps of Cook Inlet basin to illustrate temperature patterns. . The Cook Inlet Stream Temperature Monitoring Network will allow fisheries managers and land-use planners to identify watershed characteristics with the greatest potential to buffer salmon habitats from rising air and water temperatures, and provide the knowledge and data needed to prioritize sites for future research, protection and restoration actions. Contact: Sue Mauger, (907) 235-4068 ext. 24.

Interior Region

Green Infrastructure Solutions in Fairbanks

Cold Climate Housing Research Center (CCHRC), \$40,000

This project addresses an ACWA Waterbody Stewardship priority. This project will identify areas and management measures for specific green-building technologies in the Fairbanks area and will build on work started to develop Fairbanks-specific design books and evaluations of the green-building technologies. The green technologies at CCHRC Research and Test Facility (RTF) will serve as primary test cases for commercial-scale buildings. The project will focus on green roofs and demonstrate to businesses and homeowners how to achieve for zero discharge developments. The outcomes of this project will help provide additional best management practice options and management measures for the Fairbanks Storm Water Management Program. This effort will reduce stormwater runoff from buildings and homes improving the quality of area waterbodies. Contact: Ryan Colgan, (907) 457-3454.

Surface Water Monitoring of Goldstream Creek,

University of Alaska Fairbanks, \$36,000

This project addresses an ACWA Waterbody Recovery priority. Goldstream Creek is considered impaired (polluted) from turbidity. Through a previous ACWA grant, the first year of baseline water quality data is currently being collected on Goldstream Creek to establish natural background conditions and

general water quality conditions. This project will continue that effort and provide the needed second year of data for DEC to characterize the overall health of the stream. The project will collect near-continuous measurements of turbidity data from base flow and storm flow conditions along with stream discharge measurements from summer to fall of 2011 and spring 2012. Monitoring results will be analyzed and a final report will be developed discussing the results in comparison to state water quality standards. The data allow DEC to determine what actions may be necessary to restore Goldstream Creek. Contact: Andrew Parkerson-Gray, (907) 474-1851.

Water Quality Sampling in Three Waterbodies

Tanana Valley Watershed Association, \$7,549

This project addresses an ACWA Waterbody Recovery priority. The Chena River, Chena Slough and Noyes Slough are all currently impaired (polluted) waterbodies due to sediment pollution. Following a DEC approved Quality Assurance Project Plan (QAPP), this project will implement a sampling plan for settleable solids, pH, temperature, conductivity and flow in the Chena River, Chena Slough and Noyes Slough. The project will analyze and evaluate sampling results and prepare a report of findings, conclusions and recommendations based on a comparison to state water quality standards. In particular, sampling will measure sediments and discharges at reference sites upstream of potential sources of urban runoff as well as other locations previously identified in the QAPP. The data will provide a quantitative way for DEC to assess the current impairment status of these waters. Contact: Christy Everett, (907) 460-0941.

Statewide

Alaska Clean Harbors

Cook Inlet Keeper (CIK), \$10,000

This project addresses an ACWA stewardship priority. It builds upon on a program designed to help harbors operate in a way that protects water quality and living marine resources. The project will be working directly with a number of harbors to help them achieve their Clean Harbor certification. The project will also expand our current awareness of tidal grids throughout Alaska and add resources related to tidal grid activities into the Clean Harbors certification process. Contact: Rachel Lord, (907) 235-4068 ext 29.